

WHAT IS CLAIMED IS:

1. A process for producing trimellitic acid which comprises:

step A for oxidizing pseudocumene, thereby obtaining a reaction mixture comprising dimethyl benzoic acid, dimethyl benzyl alcohol, and dimethyl benzaldehyde

step B for separating dimethyl benzoic acid, dimethyl benzaldehyde and dimethyl benzyl alcohol from the reaction mixture obtained in step A,

step C for oxidizing dimethyl benzyl alcohol separated in step B, thereby obtaining dimethyl benzoic acid and dimethyl benzyl aldehyde and then feeding dimethyl benzoic acid and dimethyl benzyl aldehyde thus obtained to step B, and

step D for oxidizing dimethyl benzoic acid and/or dimethyl benzaldehyde separated in step B, thereby obtaining trimellitic acid.

2. The process according to claim 1, wherein water is used as a solvent and dimethyl benzoic acid is used and present together with pseudocumene in the oxidation reaction of step A.

3. The process according to claim 2, wherein a weight ratio of the solvent to pseudocumene is in the range of 0.2 to 10.

4. The process according to claim 2 or 3, wherein an amount of dimethyl benzoic acid to the solvent is in the range of 0.1 to 40% by weight.

5. The process according to anyone of claims 1 to 4, wherein at least one species of heavy metal compound is used as a catalyst and the reaction temperature is in the range of 90 to 170°C and the reaction pressure is in the range of 0.1 to 2.0 MPaG in step A.

6. The process according to claim 5, wherein said heavy metal is cobalt and/or manganese and an amount of the catalyst is in the range of 0.01 to 2 % by weight as metal atom to pseudocumene.

7. The process according to claim 1, wherein at least one species of heavy metal compound is used as a catalyst and aromatic hydrocarbons are used as a solvent and the reaction temperature is in the range of 120 to 210°C and the reaction pressure is in the

range of 0.1 to 2.0 MPaG in step C.

8. The process according to claim 7, wherein said heavy metal is at least one metal selected from the group consisting of cobalt, manganese and copper and an amount of the catalyst is in the range of 0.01 to 1 % by weight as metal atom to dimethyl benzyl alcohol.

9. The process according to claim 7, wherein a weight ratio of the solvent to dimethyl benzyl alcohol is in the range of 1 to 12.

10. The process according to anyone of claims 1 to 9, wherein at least one species of heavy metal compound and a bromine compound are used as a catalyst and water and/or aliphatic carboxylic acid is (are) used as a solvent in step D.

11. The process according to claim 10, wherein said heavy metal is cobalt and/or manganese and an amount of total heavy metal is in the range of 0.01 to 1 % by weight as metal atom to solvent.

12. The process according to claim 10 or 11,

wherein total bromine concentration in the reaction system is in the range of 0.1 to 4.0 % by weight as bromine atom to the solvent.

13.           The process according to anyone of claims 1 to 12, wherein step A, step C and step D are conducted in a continuous process.